



iPhone 7 Screen and Digitizer Replacement

Replace a cracked screen in an iPhone 7.

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INTRODUCTION

Follow the steps in this guide to replace a cracked or faulty screen in an iPhone 7. This guide includes removing the original display assembly, as well removing the [home/Touch ID sensor](#), [earpiece speaker](#), [front camera assembly](#), and [LCD shield plate](#) from the original display—all of which must be transferred to your new display before installing it.

If your replacement display already includes those parts, follow [this shorter guide](#) instead.

In either case, **it's important to carefully transfer the original home/Touch ID sensor onto the new display in order for it to function.** The solid state home button is paired to its original logic board by Apple, so replacing it will render it unusable.

Opening the iPhone 7 will damage the waterproof seals on the display. If you do not replace the adhesive seals, your phone will function normally, but will no longer be water-resistant.



TOOLS:

- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [iOpener](#) (1)
- [Suction Handle](#) (1)
- [Spudger](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Tri-point Y000 Screwdriver Bit](#) (1)
- [Tweezers](#) (1)
- [Phillips #000 Screwdriver](#) (1)





PARTS:

- [iPhone 7 LCD Screen and Digitizer](#) (1)
- [iPhone 7 Display Assembly Adhesive](#) (1)
- [iPhone 7 Front Panel Assembly Cable Bracket](#) (1)
- [iPhone 7 Earpiece Speaker Bracket](#) (1)


Step 1 — Pentalobe Screws



-  Before you begin, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.
- Power off your iPhone before beginning disassembly.
-  Opening the iPhone's display will damage its waterproof seals. If you do not replace the seals, your phone will no longer be water resistant.
- Remove the two 3.4 mm pentalobe screws on the bottom edge of the iPhone.

Step 2 — Opening Procedure



-  Heating the lower edge of the iPhone will help soften the adhesive securing the display, making it easier to open.
- Use a hairdryer or [prepare an iOpener](#) and apply it to the lower edge of the iPhone for about a minute in order to soften up the adhesive underneath.

Step 3



- Attach a suction cup to the lower half of the display assembly, just above the home button.
 - ⓘ Be sure the suction cup does not overlap with the home button, as this will prevent a seal from forming between the suction cup and front glass.

Step 4



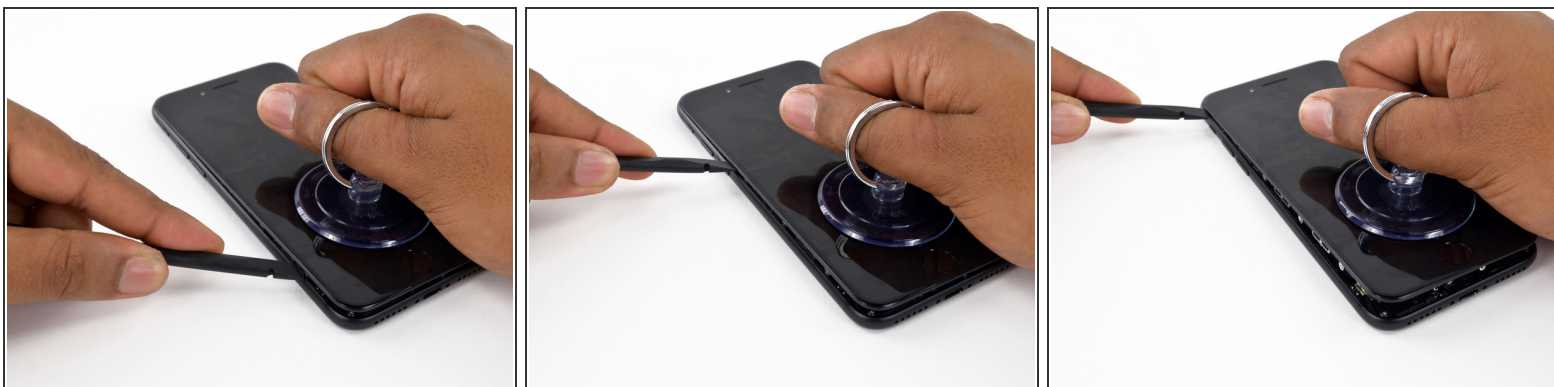
- Pull up on the suction cup to create a small gap between the display assembly and the rear case.
- Insert the flat end of a spudger into the gap.
 - ⓘ The watertight adhesive holding the display in place is very strong, and creating this initial gap takes a significant amount of force. If you're having a hard time opening a gap, rock the screen up and down to weaken the adhesive until you can fit a spudger inside.

Step 5




- Slide the spudger to the left along the lower edge of the iPhone.
- Twist the spudger to widen the gap between the display and rear case.

Step 6



- Slide the spudger up the left side of the iPhone, starting at the lower edge and moving towards the volume control buttons and silent switch.

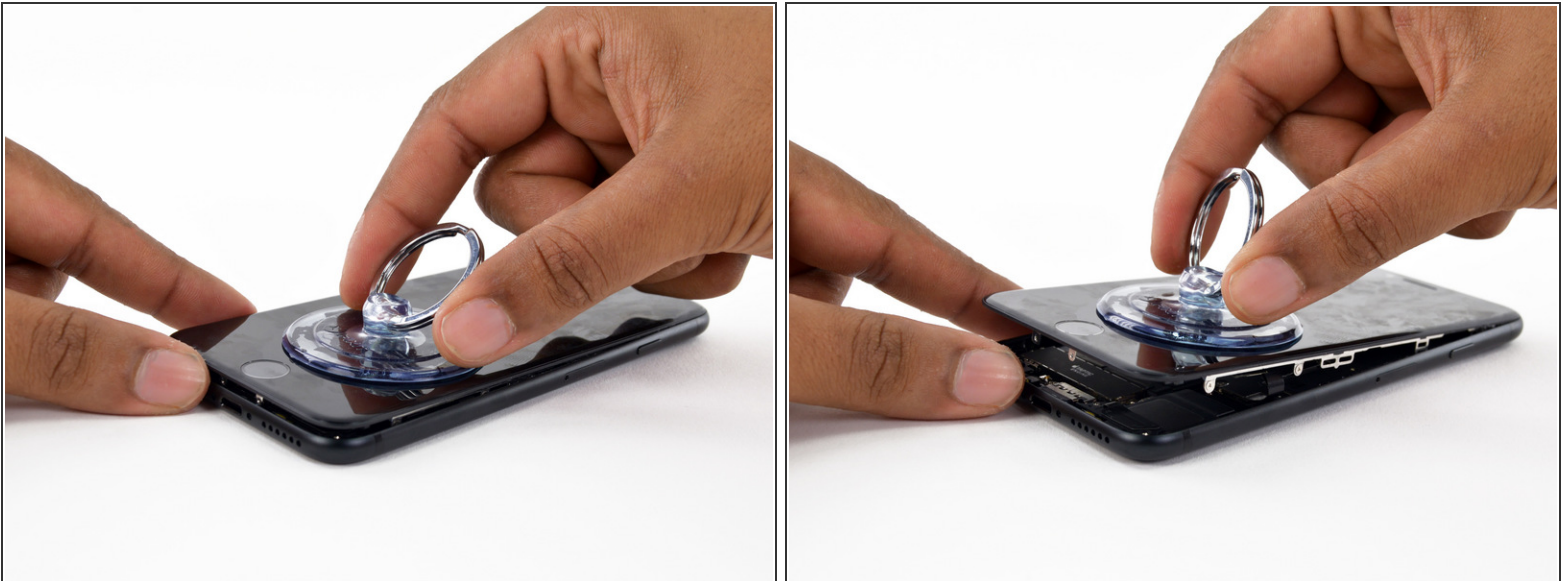
 Do not pry along the top edge of the phone, you risk damaging the plastic clips securing the display.

Step 7



- Insert the flat edge of a spudger into the bottom right corner of the device.
- Twist the spudger to widen the gap between the display assembly and the rear case.
- Slide the flat end of the spudger up the right side of the phone to break up the adhesive holding the display in place.

Step 8



- Pull up on the suction cup to lift up the display and open the iPhone.

⚠ Do not raise the display more than 10° as there are ribbon cables along the right edge of the device connecting the display to the logic board.

Step 9



- Pull up on the small nub on the suction cup to remove it from the front panel.

Step 10



- Slide an opening pick along the top edge of the iPhone, between the rear case and front panel, to break up the remaining adhesive holding the screen in place.

⚠ Be careful not to damage the plastic clips on the top edge of the phone.

Step 11



- Pull the display assembly slightly away from the top edge of the phone to disengage the clips holding it to the rear case.
 - Open the iPhone by swinging the display up from the left side, like the back cover of a book.
- ⚠ Don't try to fully separate the display yet, as several fragile ribbon cables still connect it to the iPhone's logic board.

Step 12 — Battery Disconnection



- Remove the following tri-point Y000 screws from the lower connector bracket:
 - Three 1.2 mm screws
 - One 2.4 mm screw

Step 13



- Remove the lower connector bracket.

Step 14



- Use the point of a spudger to lift the battery connector out of its socket on the logic board.
- ⓘ Bend the connector cable up slightly to prevent it from making contact with the socket and providing power to the phone.

Step 15 — Display Assembly



- Use the flat end of a spudger or a fingernail to disconnect the two lower display connectors by prying them straight up from their sockets on the logic board.
- ☞ To reconnect these cables, press down on one end until it clicks into place, then repeat on the opposite end. **Do not** press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.

Step 16



- Remove the two 1.3 mm Phillips screws securing the bracket over the front panel sensor assembly connector.
- Remove the bracket.

Step 17



- Disconnect the front panel sensor assembly connector from its socket on the logic board.

✦ This press connector should also be reconnected one end at a time to minimize the risk of bending.

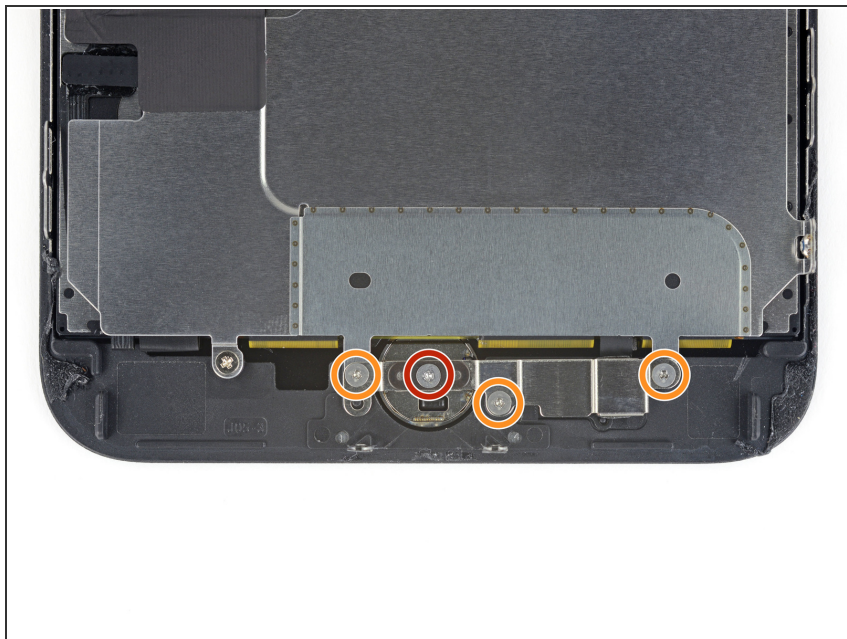
Step 18



- Remove the display assembly.

✦ During reassembly, pause here if you wish to [replace the adhesive around the edges of the display](#).

Step 19 — Home/Touch ID Sensor



- Remove the four Y000 screws securing the bracket over the home/Touch ID sensor:
 - One 1.1 mm screw
 - Three 1.3 mm screws

Step 20



- Remove the bracket that secures the home/Touch ID sensor.

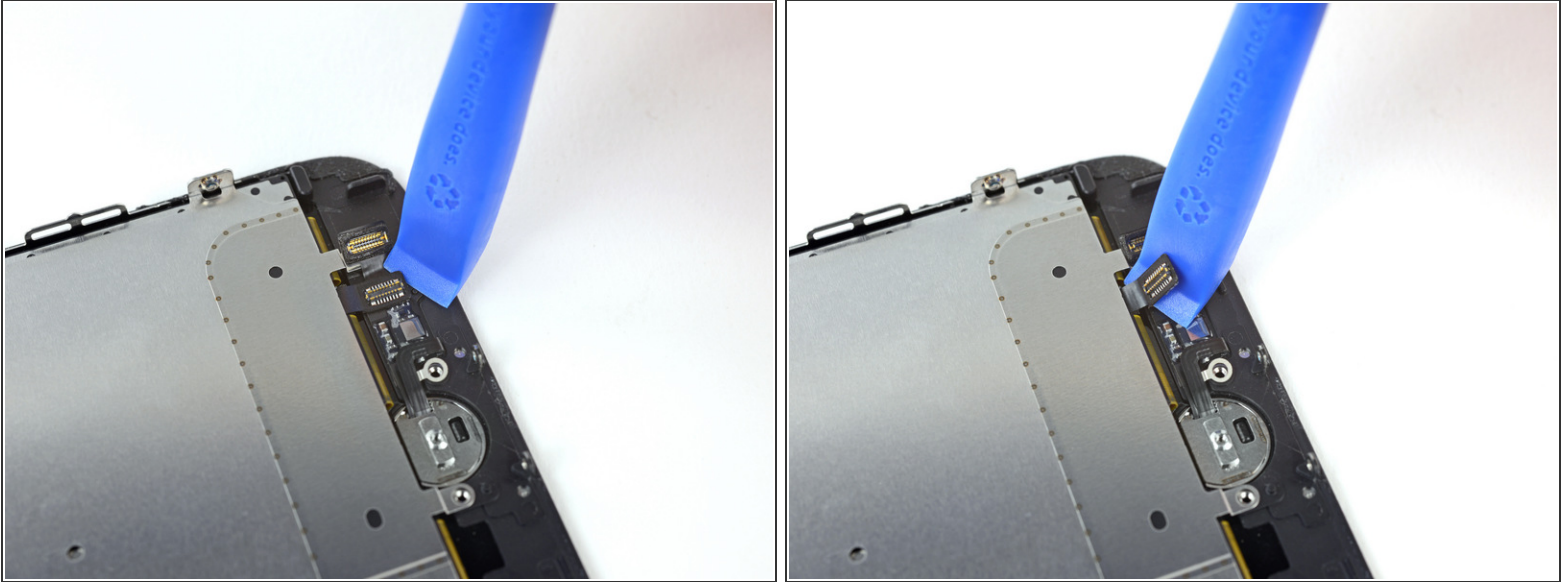
Step 21



- Pry under the left edge of the home button cable connector to disconnect it from its socket.

⚠ If the entire connector begins to flip up without separating, press down on the cable at the top edge of the connector with the flat of your spudger, while simultaneously prying up the left edge of the connector. Be very careful not to damage the cable or connector, or you will permanently disable the sensor.

Step 22



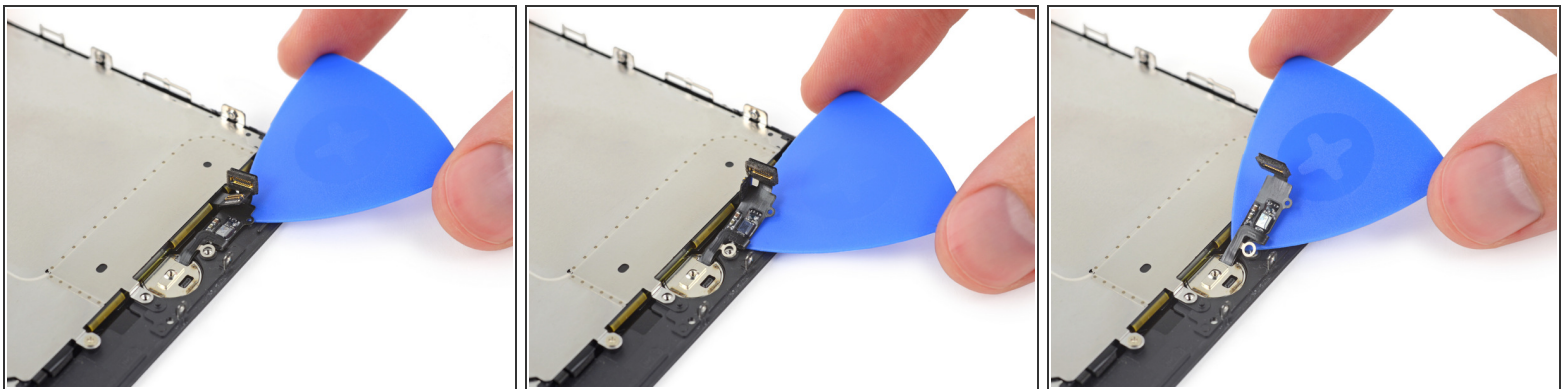
- Carefully pry up the underlying connector and move it out of the way of the home/Touch ID cable.
 - ⚠ It's very easy to damage your iPhone during this step. Work slowly and take care where you pry with your tool. If you damage the Touch ID hardware, it can only be replaced by Apple.
- If the connector doesn't pry up easily, use a hair dryer or iOpener to heat and soften the adhesive securing the connector, and then try again.
- ⚠ Don't try to detach the connector completely—simply flip it up slightly so that the underlying home/Touch ID sensor cable can be removed.

Step 23



- ⓘ Heating the area around the home/Touch ID sensor will help soften the adhesive holding its delicate cable in place, making it easier to remove safely.
- Flip the display assembly over. Use a hairdryer or [prepare an iOpener](#) and apply it to the lower edge of the display for about 90 seconds in order to soften up the adhesive underneath.

Step 24



- Use an opening pick to gently separate the adhesive holding the home/Touch ID sensor cable to the back side of the display panel.

Step 25



- Remove the home/Touch ID sensor assembly.

Step 26 — Earpiece Speaker



- Remove the three Phillips screws securing the earpiece bracket to the front panel:
 - Two 2.6 mm screws
 - One 1.7 mm screw

Step 27



- Remove the earpiece speaker bracket.

Step 28



- Lift the front facing camera out of the way to access the earpiece speaker.

Step 29



- Remove the following two Phillips screws securing the earpiece speaker to the front panel:
 - One 1.9 mm screw
 - One 2.5 mm screw

Step 30



- Remove the earpiece speaker.

Step 31 — Front Camera and Sensor Cable



- Use a spudger to gently pry the ambient light sensor out of its recess on the front panel.

Step 32



- [Reheat your iOpener](#) and apply it to the upper edge of the display assembly to soften the adhesive holding the front camera and sensor assembly in place.
- ⓘ Wait about two minutes before moving on to the next step to adequately soften the adhesive.

Step 33



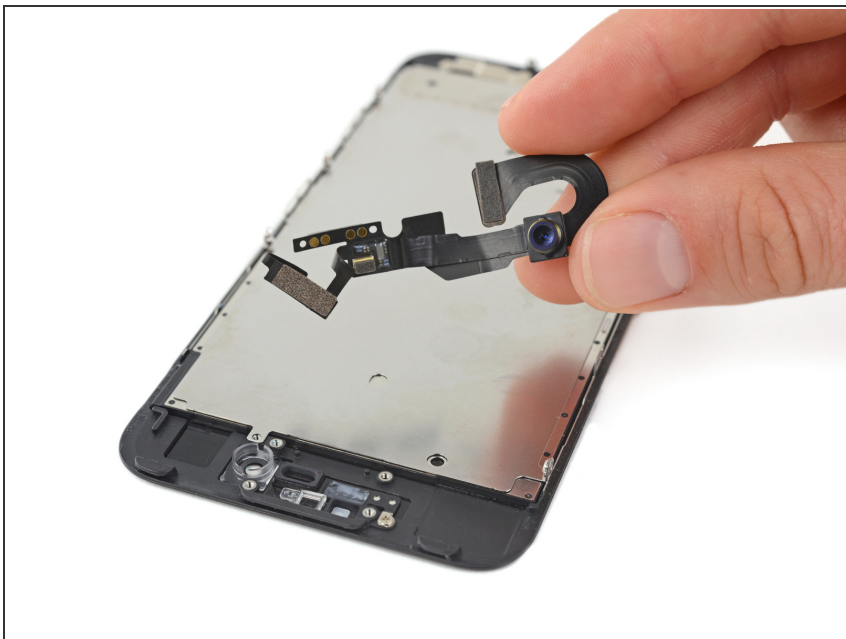
- Slide the pick towards the front facing camera housing, separating the adhesive holding the cable to the front panel. Stop just before the screw posts.

Step 34



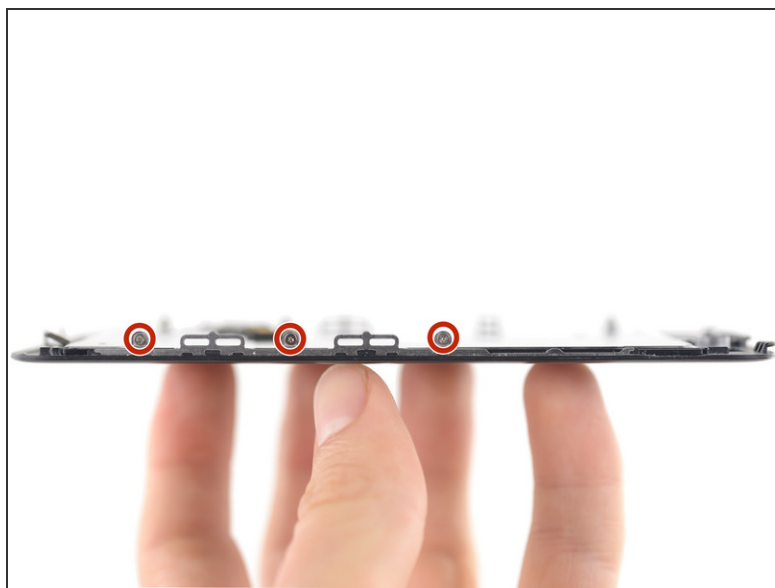
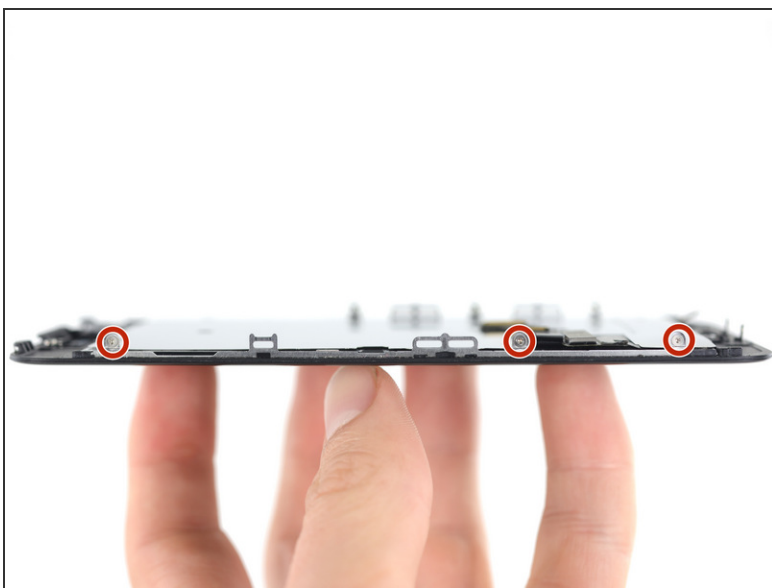
- Use the pick to lift the camera cable up off of the two plastic posts on the front panel and separate it from the last of the adhesive.

Step 35



- Remove the front camera and sensor cable.

Step 36 — LCD Shield Plate



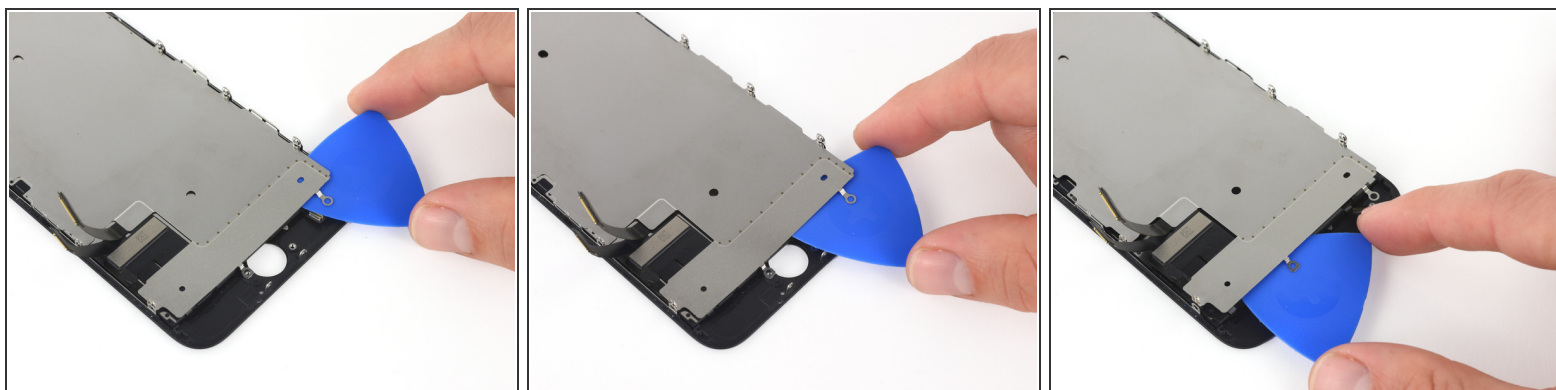
- Remove the three tri-point Y000 screws from either side of the display assembly for a total of six screws.

Step 37



- [Heat an iOpener](#) and lay it over the edge of the shield closest to the home button to soften the adhesive holding it in place.

Step 38



- Use an opening pick to break up the adhesive near the home button that holds the LCD shield plate to the display assembly.

Step 39



- Gently lift the LCD shield plate from the display assembly.
- ⚠ Be careful not to snag the display data cables when removing the LCD shield plate.

Step 40 — Screen and Digitizer



- Only the screen and digitizer remain.

To reassemble your device, follow these instructions in reverse order.

